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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,574	08/19/2003	Hironori Tanaka	4492-0103P	2948
2292	7590	04/06/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			MORRISON, THOMAS A	
			ART UNIT	PAPER NUMBER
			3653	

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/642,574

Applicant(s)

TANAKA ET AL.

Examiner

Thomas A. Morrison

Art Unit

3653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 08/19/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because of minor informalities. In particular, the abstract contains minor grammatical errors. For example, "separating member" in line 3 should be -- a separating member --. Correction is required. See MPEP § 608.01(b).

2. The disclosure is objected to because of the following informalities: (1) "feeding roller 6", on line 12 of page 11 should be -- feeding roller 5 --; "(no shown)" on page 12, lines 18-19 should be -- (not shown) --.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 2-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 2 and its dependent claims 3-6, it is unclear in claim 2 what is meant by the recited "certain rigidity".

Claim 3 recites the limitation "the length" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 4, it is unclear what is meant by the recited **stiff** portion having **relatively high stiffness** and a contact portion having **relatively low stiffness**.

Regarding claim 6, it is unclear what is meant by the recited allowing an operation of securing the separating rubber member and a mount for mounting the deflection preventive sheet thereon to an upper lid of the feeder body with screws to be performed therethrough.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Tanaka et al. In particular, the Tanaka et al. patent discloses all of the limitations of claims 1-4.

Regarding claim 1, Figs. 1, 6 and 31-33b show a paper feeder including a sheet feeding roller (18 or 202) disposed upstream of a skew correction roller (32a or 32b) in a sheet feeding direction at a location corresponding to a widthwise central portion of a recording sheet (P);

a separating rubber member (22 or 212) disposed as opposed to the sheet feeding roller (18 or 202); and

buckling preventive mechanism (including 254 and 204) extending over opposite sides of the separating rubber member (212) for preventing the recording sheet (P)

from being deflected during feeding of the recording sheet (P) by the sheet feeding roller (202).

Regarding claim 2, Figs. 31-33b show that the buckling preventive mechanism (including 254 and 204) has a deflection preventive sheet (254) with a thin flexible sheet having certain rigidity, and a base plate (204) of a feeder body,

the deflection preventive sheet (254) and the base plate (204) defining therebetween a gap established to permit the recording sheet (P) to pass therethrough with a clearance.

Regarding claim 3, Figs. 31-33b show that the deflection preventive sheet (254) extends more broadly than the length of the sheet feeding roller (202) outwardly from opposite sides of the separating rubber member (212) in a direction orthogonal to the sheet feeding direction (Fig. 31).

Regarding claim 4, Figs. 31-33b show that the deflection preventive sheet (254) includes a stiff portion (254) having relatively high stiffness and a contact portion (258) having relatively low stiffness and positioned downstream of the stiff portion (254).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 5, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. as applied to claim 4 above, and further in view of

Japanese Publication No. 5-544. The Tanaka et al. patent discloses all of the limitations of claim 5, except for the slits.

Japanese Publication No. 5-544 shows that it is well known to provide a contact portion (including 27) of a deflection preventive sheet (24) with slits (29, 29), e.g., to relieve stress in the area where the contact portion(s) (27) join a stiff portion (28). See, e.g., Fig. 3. Such slits (29,29) enhance flexibility of the contact portion(s) (including 27). It would have been obvious to one of ordinary skill in the art at the time of the invention, to provide the deflection preventative sheet of Tanaka et al. with slits in order to relieve stress in the area where the contact portion(s) (258) of Tanaka et al. join the stiff portion (254) of the Tanaka et al., as shown in Japanese Publication No. 5-544.

6. Claims 1, 2, 4 and 5, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Publication No. 2-95665 in view of Tanaka et al. In particular, Japanese Publication No. 2-95665 in view of Tanaka et al. meets all of the limitations of claims 1, 2, 4 and 5.

Regarding claim 1, Figs. 1, 3 of Japanese Publication No. 2-95665 show a paper feeder (27) including

a sheet feeding roller (4) disposed upstream of a roller (31) in a sheet feeding direction at a location corresponding to a widthwise central portion of a recording sheet (2);

a separating member (21) disposed as opposed to the sheet feeding roller (4);
and

buckling preventive mechanism (including 22) extending over opposite sides of the separating member (21) for preventing the recording sheet (2) from being deflected during feeding of the recording sheet (2) by the sheet feeding roller (4). However, it is unclear whether the separating member (21) is a rubber member. Also, it is unclear whether the roller (31) is a skew correction roller.

The Tanaka et al. patent discloses that it is well known to provide a paper feeder with a separating member (212) that is made from rubber, in order to provide friction that is greater than the friction between stacked sheets to facilitate separation. See column 13, lines 29-45. Also, Tanaka et al. discloses that it is well known to provide a paper feeder with a skew correction roller (32a or 32b) downstream of a feeding roller (18), to register the front edges of the sheets conveyed by the feed roller. See, e.g., Fig. 1. It would have been obvious to one of ordinary skill in the art at the time of the invention, to provide Japanese Publication No. 2-95665 with a separating member that is made of rubber and provide a roller downstream of the feeder roller (4) that is a skew correction roller (registration roller), in order to facilitate good separation and register the front edges of sheets conveyed by the feed roller (4) of Japanese Publication No. 2-95665, as taught by Tanaka et al.

Regarding claim 2, Figs. 1-3 of Japanese Publication No. 2-95665 show that the buckling preventive mechanism (including 22) has a deflection preventive sheet (22) with a thin flexible sheet having certain rigidity, and a base plate (3) of a feeder body,

the deflection preventive sheet (23 and 25) and the base plate (3) defining therebetween a gap established to permit the recording sheet (2) to pass therethrough with a clearance.

Regarding claim 4, Figs. 3 of Japanese Publication No. 2-95665 shows that the deflection preventive sheet (22) includes a stiff portion (23) having relatively high stiffness and a contact portion (including 25 and area near screw hole) having relatively low stiffness and positioned downstream of the stiff portion (23).

Regarding claim 5, Fig. 3 of Japanese Publication No. 2-95665 shows that the contact portion (including 25 and area near screw hole) has slits (one slit between 24 and the area near the screw hole on each side of 22). This reduction of material enhances the flexibility of the contact portion.

7. Claim 3, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Publication No. 2-95665 in view of Tanaka et al. as applied to claim 2 above, and further in view of Japanese Publication No. 57-9648. Japanese Publication No. 2-95665 in view of Tanaka et al. discloses all of the limitations of claim 3, except for the breadth of the deflection preventative sheet.

Japanese Publication No. 57-9648 discloses that it is well known to provide a paper feeder (6) with a deflection preventive sheet (5) that is broader than a length of a sheet feed roller (4), in order to accurately control the flatness across the width of each sheet conveyed by the feed roller (4). It would have been obvious to one of ordinary skill in the art at the time of the invention, to provide the apparatus of Japanese Publication No. 2-95665 and Tanaka et al. with a deflection preventive sheet that is

broader than the length of the feed roller (4) of Japanese Publication No. 2-95665, in order to accurately control the flatness across the width of each sheet as it is conveyed, as shown in Japanese Publication No. 57-9648.

8. Claim 6, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Publication No. 2-95665 in view of Tanaka et al. as applied to claim 5 above, and further in view of Japanese Publication No. 5-544. Japanese Publication No. 2-95665 in view of Tanaka et al. meets all of the limitations of claim 6, except for the utilization of the slits as openings.

Figs. 1 and 3 of Japanese Publication No. 2-95665 show that it is well known to secure the separating member (21) and a mount (including 8) for mounting the deflection preventive sheet (22) thereon to an upper lid (including 1) of a feeder body with screws (26), but does not specifically show that the slits (one slit between 24 and the area near the screw hole on each side of 22) are utilized as openings for such securing of elements.

Japanese Publication No. 5-544 shows that it is well known to provide a deflection preventive sheet (24) with slits (29) that can be utilized to secure a stack of components to an upper lid (17) of a feeder body such that the slits (29) facilitate adjustment of the deflection preventive sheet (24). See Fig. 2 of Japanese Publication No. 5-544. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the slits of Japanese Publication No. 2-95665 as openings for securing the separator member and the mount to the upper lid, in order to facilitate adjustment, as shown in Japanese Publication No. 5-544.


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Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A. Morrison whose telephone number is 703-305-0554. The examiner can normally be reached on M-F, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Walsh can be reached on 703-306-4173. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


DONALD A. WALSH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 0000